

NESTEROVICH, N.D., akademik; IVANOV, A.F.; IVANOVA, Ye.V.; MARGAYLIK, G.I.;
PONOMAREVA, A.V.; SIROTKINA, R.G.; SMIRNOVA, V.A.; SMOL'SKAYA, Ye. N.;
CHEKALINSKAYA, N.I.; BULAT, O., red. izd-va; SIDERKO, N., tekhn. red.

[Trees and shrubbery introduced to the White Russian S.S.R.] Intro-
dutsirovannye derev'ia i kustarniki v Belorusskoi SSR. Minsk.
No.3. [Introduced woody plants of Siberia, Europe, the Mediterranean,
the Crimea, the Ca casus, and Central Asia] Introdutsirovannye dre-
vesnye rastenia flory Sibiri, Evropy, Sredizemnomor'ia, Kryma, Kav-
kaza i Srednei Azii. 1961. 333 p. (MIRA 14:6)

1. Akademiya nauk BSSR, Minsk. Institut biologii. 2. Akademiya
nauk BSSR (for Nesterovich)
(White Russia--Plant introduction)

NESTEROVICH, N.D. [Nestsiarovich, M.D.]; SIROTKINA, R.G. [Sirotkina, R.H.]

Dehydration and water saturation of the leaves of woody plants.
Vestsi AN BSSR Ser. bial. nav. no.2:17-28 '63 (MIRA 17:3)

NESTEROVICH, N.D. [Nestsiarovich, M.D.]; SIROTKINA, R.R.

Water content of annual shoots of woody plants during fall,
winter and spring. Vestsi AN BSSR, Ser. biyal. nav. no.4:5-11
'63. (MIRA 17:8)

SIROTINA, T.D.

Malevich, G.A. and Sirotina, T.D. "Accelerated method for the determination of intestinal bacilli in food products," Sbornik nauch. rabot Nauch.-issled. in-t torgovli i obshchestv. pitaniya), Moscow, 1949, p. 219-30, Bibliog: 34 items

SO: U-5241, 17 December 1953, (Letopis 'zhurnal 'nykh Statey, No. 26 1949).

POPOVA, Ye.A.; MOTINA, Ye.I., red.-lingvist; PASHINKIN, A.S., red.-
khimik; DEM'YANOVA, L.G., red.; SIROTKINA, T.I., red.; MASLEN-
NIKOVA, T.A., tekhn. red.

[Book of readings in chemistry; a manual for foreign students
studying the Russian language] Kniga dlja chtenija po khimii: ucheb-
noe posobie dlja studentov-inostrantsev, izuchajushchikh russkii
iazyk. Moskva, Izd-vo Mosk. univ., 1961. 202 p. (MIRA 14:9)
(Russian language—Chrestomathies and readers (Chemistry))

SIROTKINA, T.N.; PETRUSHANKO, V.M.

Experience in using gamma-gamma logging in the Noril'sk region.
Vop. rud. geofiz. no.5:113-116 '65. (MIRA 18:9)

L 14562-66 EWT(m)/EWP(w)/T/EWP(t)/EWP(b) IJP(c) JD
ACC NR: AP6002015 (A) SOURCE CODE: UR/0288/65/000/003/0079/0085

AUTHOR: Kravchenko, A. F.; Kornilovich, A. A.; Saks, L. A.; Sirotkina, V. P.

ORG: Institute of Semiconductor Physics, Siberian Branch, AN SSSR, Novosibirsk (Institut fiziki poluprovodnikov Sibirskego otdeleniya AN SSSR)

TITLE: Electrical properties of silicon with phosphorus admixtures

SOURCE: AN SSSR. Sibirskeye otdeleniye. Izvestiya. Seriya tekhnicheskikh nauk, no. 3, 1965, 79-85

TOPIC TAGS: silicon semiconductor, specific resistance, Hall effect, thermoelectromotive force, phonon scattering

ABSTRACT: The majority of earlier works concerning the influence of phosphorus on the physical properties of silicon were carried out on polycrystalline materials in which the intercrystalline potential barriers made the interpretation of kinetic effects extremely complicated. In view of the present-day uses of n-type silicon with low P content, the authors investigated effects in three types of Si samples (Si-1, Si-2, Si-3) with differing P concentration having at room temperature specific resistivities of 18, 9, and 6 ohm·cm. Experimental results are summarized in Figures 1 through 4. A detailed theoretical interpretation of the experimental results is also given. The theoretical dashed curves in Fig. 4 are in good agreement with experimental data except in the low temperature region, where the deviation may be due to admixture scattering which was neglected during the theoretical derivation.

UDC: 539.293:538.632

539.295:537

Card 1/4

L 14562-66

ACC NR: AP6002015

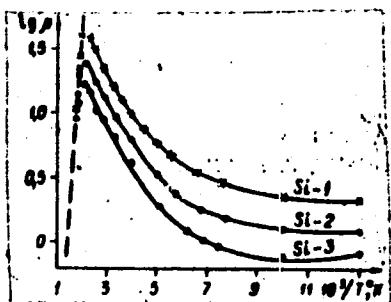


Fig. 1 Temperature dependence of n-type, P admixture silicon resistivity

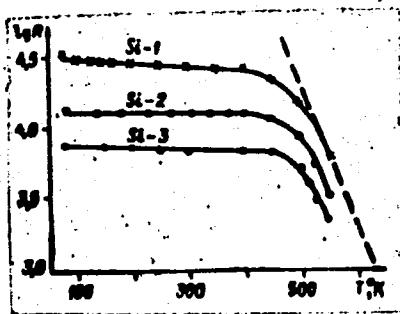


Fig. 2 Temperature dependence of the Hall constant of n-type, P admixture silicon

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L 14562-66

ACC NR: AP6002015

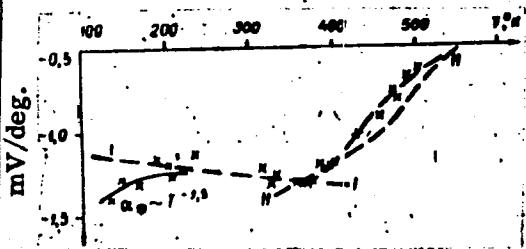


Fig. 3 Temperature dependence of the thermal emf of n-type, P admixture silicon

Curve II in Fig. 3 is somewhat below the experimental points probably because of a too coarse estimate of the role of inter-valley scattering. The increase in the absolute value of the

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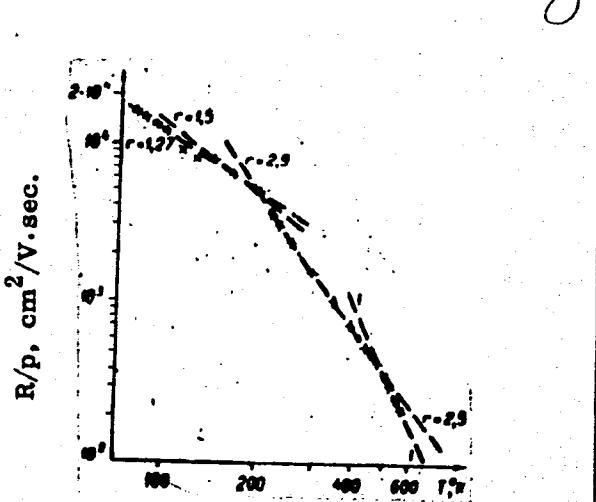


Fig. 4 Hall mobility as a function of temperature

L 14562-66

ACC NR: AP6002015

thermal emf at low temperatures is apparently due mainly to the effect of phonon enhancement.
(The experimental data concerning the thermal emf agree well, within the admixture scattering
inaccuracy, with the theoretical expression for the phonon thermal emf $\alpha_{ph} \sim T^{-3.5}$.) Orig.
art. has: 16 formulas and 4 figures.

[08]

SUB CODE: 11,20 / SUBM DATE: 27Aug64 / OTH REF: 006 / ATD PRESS: 4190

OC

Card 4/4

S/020/63/148/001/023/032
B106/B186

AUTHORS: Kovba, L. M., Wang Shih-hua, Sirotkina, Ye. I.

TITLE: Reaction of uranium oxides with vanadium and niobium oxides

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 148, no. 1, 1963, 113-115

TEXT: By means of thermal and x-ray phase analyses, the reactions of uranyl hydroxide with V_2O_5 and Nb_2O_5 were studied by boiling their aqueous suspensions for 85-100 hrs. In the composition range of U:V between 1:1 and 2:3, uranyl pyrovanadate (I) (m.p. 790°C) is the only phase; at U:V ratios between 1:2 and 1:3 uranyl hexavanadate (II) exists. Preparation with U:V = 3:2 have two phases (I and α - $UO_2(OH)_2$). Anhydrous uranyl orthovanadate (m.p. 805-810°C, decomposing in I and U_3O_8) is obtained by heating I with uranyl hydroxide to 575°C; β -($UO_2)_2V_2O_7$ is formed at 330°C, and α -($UO_2)_2V_2O_7$ at >500°C (the latter conversion is irreversible). In the dehydration of II, β -($UO_2)_2V_6O_17$ is formed at

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S/020/63/148/001/023/032
B106/B186

Reaction of uranium oxides ...

260°C, which passes over into the α -modification at 550°C (rhombic; $a = 10.40$; $b = 11.90$; $c = 5.69$ kX; $z = 2$; most probable space group p222). U_3O_8 reacts completely with V_2O_5 at 550-650°C. Depending on the quantitative ratios, orthovanadate is formed (at 700-800°C), as is I (α -modification), and II (both modifications). The new phases UV_3O_{10} and UV_2O_6 are formed at 600-1000°C by heating V_2O_5 in vacuo with a mixture of UO_2 and U_3O_8 of the total composition U_2O_5 . V_2O_4 is dissolved at about 0.5 mole% in UO_2 with formation of the compound UV_2O_6 (trigonal; type $PbSb_2O_6$; $a = 4.986$; $c = 4.755$ kX; space group p312, $z = 1$). V_2O_3 does not react with UO_2 up to 2300°C. Reduction of uranyl vanadates with hydrogen at 400-900°C yields the new phases $UV_2O_{6.1}$ and $UV_3O_{8.03}$. The end product of the reduction is a mixture of UO_2 and V_2O_3 . $\beta-(UO_2)_2V_6O_{17}$, UV_3O_{10} , UV_2O_5 , $UV_2O_{6.1}$, and hydrous II are structurally closely related compounds with hexagonal subcells (a between 3.46 and 3.64 kX; c between

Card 2/3

KOVBA, I. M., SIROTKINA, YE. I., TRUNOV, V. K.

Study of some double oxides of uranium. Zhur. neorg. khim. 10
no. 4, 549-551 F '65. (MIRA 18:11)

I. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
Submitted July 18, 1963.

TRUNOV, V.K.; KOVBA, L.M.; SIROTKINA, Ye.I.

X-ray study of the double oxides of some transition metals.
Dokl. AN SSSR 153 no.5:1085-1088 D '63. (MIRA 17:1)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
Predstavлено академиком V.I. Spitsynym.

EPF(c)/EPF(n)-2/EPR/EWO(j)/EWT(m)/EWP(b)/EWP(t) pr-4/ps-4/pu-4
L 36703-65 IJP(c) ES/WN/JD

ACCESSION NR: AP5005007

S/0078/65/010/002/0349/0351

38
37
B

AUTHOR: Kovba, L. M.; Sirotkina, Ye. I.; Trunov, V. K.

TITLE: Investigation of certain binary oxides of uranium

SOURCE: Zhurnal neorganicheskoy khimii, v. 10, no. 2, 1965, 349-351

TOPIC TAGS: uranium binary oxide, uranium niobate, uranium vanadate, uranium molybdate, synthesis, crystal structure

ABSTRACT: Two new binary oxides of uranium were synthesized: UNbO_5 and $\text{UNb}_3\text{O}_{10}$ by roasting mixtures of $\beta\text{-Nb}_2\text{O}_5$ and U_3O_8 in 1:1 and 1:3 U:Nb ratios at 1200-1400°C. With excess U, the product comprised a mixture of U_3O_8 + UNbO_5 ; with a 1:2 ratio, a mixture of the 2 new oxides was formed; and with excess Nb, the products was a mixture of $\beta\text{-Nb}_2\text{O}_5$ + $\text{UNb}_3\text{O}_{10}$. The lattice parameters of $\text{UNb}_3\text{O}_{10}$ were determined: $a = 7.373 \pm 0.002\text{\AA}$, $c = 15.98 \pm 0.01\text{\AA}$. The parameters of the binary oxides UVO_5 and UMoO_5 also based on $\alpha\text{-UO}_3$, were determined. Orig. art. has: 3 tables

Card 1/2

L 36703-65

ACCESSION NR: AP5005007

ASSOCIATION: Moskovskiy gosudarstvenny*y universitet im. M. V. Lomonosova
(Moscow State University)

SUBMITTED: 18Jul63

ENCL: 00

SUB CODE: IC, MM

NR REF SOV: 007

OTHER: 000

Card 2/2 MB

LOPATINSKIY, V. . . ; SIROKINA, Yo. Yo. ; APTEROVA, N. N. ; Prinimaia uchastiye
VASELEVVA, V. P.

Chemistry of carbazole derivatives. Part 1. Acetylation of carbazole by acetic anhydride in the presence of zinc chloride and other catalysts. Izv. TPI 111:36-39 '61. (MIRA 1:9)

1. Predstavleno professorom doktorom khimicheskikh nauk L. P.
Kulevym.
(Carbazole) (Acetic anhydride)

LOPATINSKIY, V.P.; SIROTKINA, Ye.Ye.; ANGSOVA, M.M.

Chemistry of carbazole derivatives. Part 2. Acetylation of 9-methyl-
carbazole. Izv.TPI 111:40-43 '61. (NIR 16:9)

1. Predstavleno professorom doktorom khimicheskikh nauk L.P.Kulevym.
(Carbazole) (Acetylation)

LOPATINSKIY, V.P.; SLAGKINA, Ye.Ye.

Chemistry of carbazole derivatives. Part 3. Vinylation of carbazole with vinyl acetate and the synthesis of a 9-vinylcarbazole polymer. Izv.TPI 111:44-45 '61. (MIRA 16:9)

1. Predstavleno professorom doktorom khimicheskikh nauk L.P. Kulevym.
(Carbazole) (Vinyl acetate polymers)

LOPATINSKIY, V.P.; SIROTKINA, Ye.Ye.; Prinimali uchastiye: MEL'NIKOVA, V.G.; AKHMETZYANOVA, I.B.

Separation of carbazole from crude acetylene with the aid of paraformaldehyde. Izv.TPI 111:107-109 '61. (KIRA 16:9)

1. Predstavleno professorom doktorom khimicheskikh nauk L.P. Kulevym. (Carbazole) (Acetylene) (Paraformaldehyde)

LOPATINSKII, V.P., ~~YU. P.~~ YANOVSKII, Ye. Ye., SHEKHIREV, Yu.P.

Reaction of amines with vinyl ethers. Part 3: Vinylation of diphenylamine with vinyl acetate and the synthesis of N-vinyldiphenylamine polymer. Izv. TPI 126/35-37 '64. (MIRA 18:7)

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550910002-8

LOPATINSKIY, V.P.; SIROTKINA, Ye.Ye.; ANOSOVA, M.M.; TIKHONOVA, L.G.; PAVLOV,
S.F.

Chemistry of carbazole derivatives. Part 24: Synthesis of some 9-alkyl-
carbazoles. Izv. TPI 126:58-61 '64. (MIRA 18:7)

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550910002-8"

LOPATINSKI, V.P.; SIROTKINA, N.Ya.

Chemistry of carbazole derivatives. Part 12: Synthesis of some 3-acetyl-9-alkylcarbazoles. Izv. TFI 126:67-66 '64.

Chemistry of carbazole derivatives. Part 14: Reduction of 3,6-di-acetyl-9-methyl- and 3,6-di-acetyl-9-ethylcarbazoles by aluminum isopropylate. Ibid., 67-69 (MIRA 18:7)

LOPATINSKIY, V.P.; SIROTKINA, Ye.Ye.; ZHEREBTSOV, I.B.

9-(β -Hydroxyethyl)carbazole. Metod. poluch. khim. reak. i
prepar. no. 11:94-96 '64. (MIRA 18:12)

1. Tomskiy politekhnicheskiy institut S.M. Kirova. Submitted
April, 1964.

КОНСИСТЕНТНАЯ СИСТЕМА
ПОЛЯРНОСТИ МАГНИТНОГО ПОЛЯ

1,4-дигидро-4-метилкарбазол. Метод. Ильин, Кис. Ред. 1. prepar.
1964 (6-12) 1964

1. Томский политехнический институт им. С.И.Макеева.
Получено 1964.

ОГРН 1055100000001
СИФОТИНА, Е.Е.

1-vinyl-9-methylcarbazole. Metod. poluch. khim. reak. 1
prepar. no. 112/0-42 '64. (MIRA 18:12)

1. Tomskiy politekhnicheskiy institut imeni S.M. Kirova.
Submitted April, 1964.

LOPATINSKIY, V.P.; SIROTKINA, Ye.Ye.

9-Hydroxymethylcarbazole. Metod. poluch. khim. reak. i prepar.
no.11:88-90 '64. (MIRA 18:12)

1. Tomskiy politekhnicheskiy institut imeni S.M. Kirova.
Submitted April 1964.

SIROTKINA, Ye.Ye.; TOROPOVA, R.G.

Quantitative determination of nitrogen in organic no oxygen-containing
compounds. Izv. TPI 126:87-90 34. (MIRA 18:7)

KESSENIKH, R.M.; PETROV, A.V.; POPOV, V.A.; LOPATINSKIY, V.P.; SIROTKINA,
Ye.Ye.

Dielectric losses of polar polymers based on carbazole. Vysokom.
soed. 7 no.2:328-332 F '65. (MIRA 18:3)

LOPATINSKIY, V.P.; SIROTKINA, Ye.Ye.; SUKHOROSLOVA, M.M.

9-Acetylcarbazole. Metod. poluch. khim. reak. i prepar.
no.11:28-30 '64. (MIFA 18:12)

1. Tomskiy politekhnichesk'y institut imeni S.M. Kirova.
Submitted April 1964.

LOPATINSKIY, V.P.; SIROTKINA, Ye.Ye.; ZHEREBTSOV, I.P.; LAYMAN, M.A.

9-Vinylcarbazole. Metod. poluch. khim. reak. i prepar. no.11;
37-39 '64. (MIRA 18:12)

1. Tomskiy politekhnicheskiy institut imeni S.M. Kirova.
Submitted April 1964.

LOPATINSKIY, V.P.; SIROTKINA, Ye.Ye.; SUKHOROSLOVA, M.M.

9-Methylicarbazoie. Metod. poluch. khim. reak. i prepar.
(MIRA 18;12)
no.11,69-72 '64.

1. Tomskiy politekhnicheskiy institut imeni S.M. Kirova.
Submitted April, 1964.

L 05924-67 EMF(j)/ENT(m) IJP(c) JW/RM

ACC NR: AR6031253 (4) SOURCE CODE: UR/0081/66/000/011/S042/S042

AUTHOR: Lopatinskiy, V. P.; Shekhirev, Yu. P.; Sirotkina, Ye. Ye.TITLE: Interaction of amines with vinyl esters. III. Vinylation of diphenylamine with vinyl acetate and the synthesis of the N-vinyl diphenylamine polymer

SOURCE: Ref. zh. Kimiya, Part II, Abs. 11S258

REF SOURCE: Izv. Tomskogo politekhn. in-ta, v. 126, 1964, 55-57

TOPIC TAGS: amine, vinyl ester, vinylation, diphenylamine, vinyl acetate, polymerization, diphenylamine polymer

ABSTRACT: The optimum conditions for the vinyl exchange between diphenylamines and vinyl acetate are provided when the reaction is carried out for 10 hours in an acetone solution in the presence of $HgSO_4$ at 20C. The resulting N-vinyl diphenylamine polymerizes directly in this reaction medium, forming polymers during the vinyl acetate conversion of 90—100%. With a yield of 72—73%, a fraction is obtained which is insoluble in methanol and consists of a white amorphous powdered polymer with a molecular weight of 800—1050, and a melting point of 115—130C. The polymer is soluble in aromatic hydrocarbons, chlorobenzene, dioxane,

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L 05f J4-67

ACC NR: AR6031253

chloroform, and pyridine, only slightly soluble in methanol and ethanol, and insoluble in water. The specific volume resistance is 10^{15} ohm/cm, dielectric permeability is 2.8 (at a frequency of 10^5 cps). The reaction under other conditions at 0, 10, 30, 40C and 4, 6, 8 hours in acetone and dioxane produces a polymer with a yield of 8-60%, while no reaction takes place in pyridine, ether, and nitrobenzene. Orig. art. has: 11 photographs. RZhKhim, 1966, 3Zh145. V. Kopylov. [Translation of abstract]

SUB CODE: 07/

kt:

Card 2/2

TOPOL'SKIY, N.A., inzh.; SIROTKO, F.V., inzh.; GRISHIN, V.A., inzh.;
TIGLEYEV, L.V., inzh.

Stand for cleaning pipes from rust and applying anticorrosive waterproof coatings. Suggested by N.A.Topol'skiy, F.V. Sirotko, V.A.Grishin, L.V.Tigleev. Rats.i izobr.predl.v stroi. no.8:120-123 '58. (MIRA 13:3)

1. Po materialam tresta Kuzbassshakhtomtash.
(Pipe, Steel--Cleaning) (Protective coatings)

SIROTKO, V. K.

USSR/Electricity - Transmission Lines - Modeling

FD-2997

Card 1/1 Pub. 41 - 10/12

Author : Ivanov, V. I., Ryzhov, P. I., and Sirotko, V. K., Leningrad

Title : Device for modeling the operating condition of a two circuit [three phase] line during disruption of one phase

Periodical : Izv. AN SSSR. Otd. Tekh. Nauk, 3, 150-153, March 1955

Abstract : Describes the employment of a model in the study of the double circuit transmission line from the Kuybyshev electro-power station to Moscow. The double circuit line carries three phase current and the experimentation described in this article deals with the use of two phases of the three phase system in case of emergency breakdown of one of these phases. Concludes that with the line current of from 0-5 times the normal all the resistances remain accurate from 1 to 1.5%; when the current is 5 times the normal, the voltage of the reaction coil does not show any distortion, and the current remains sinusoidal; the model completely duplicates the actual operation and thus modeling should lend itself to other forms of experimentation. Pictures, diagrams.

Institution : Leningrad Branch of the Institute of Automatics and Telemechanics, Academy of Sciences, USSR

Submitted : November 20, 1954

IVANOV, V.I.; RYZHOV, P.I.; SIROTKO, V.K.

Investigation of relay protection by means of an electrodynamic
model of power systems of the IEM of the Academy of Sciences of
the U.S.S.R. Mauch.dokl.vys.shkoly; energ. no.3:187-192 '58.
(MIRA 12:1)

1. Institut elektromekhaniki AN SSSR.
(Power engineering- Models)

SOV/105-50-11-15/28

8(2)
AUTHOR: Sirotko, V. K., Engineer

TITLE: Relay Protections Based Upon the Hall Effect (Releynyye
zashchity na osnove effekta Kholla)

PERIODICAL: Elektrichestvo, 1958, Nr 11, pp 69-71 (USSR)

ABSTRACT: This paper starts with a description of the Hall-(Kholl) effect. A figure illustrating a pick-up transmitter based upon the Hall-effect is presented. This transmitter was used in the Institut elektromekhaniki AN SSSR (Institute of Electro-mechanics, AS USSR). The circuit diagram of two coupled Hall transmitters is given, the total emf of the transmitters consisting only of the constant components. The mode of operation of the circuit is described. From formula (6) which is derived, it can be seen that no variable component is contained in the Hall-emf if the fluxes are sinusoidal. It is shown that relay protections based upon the induction principle making use of the Hall effect can be constructed on the basis of the circuit diagram (Fig 3) presented in this paper. Relays with more complicated characteristics can also be constructed.

Card 1/3

Relay Protections Based Upon the Hall Effect SOV/105-58-11-15/28

Calculations and tests showed that the moving element of a Hall relay with a sensitivity comparable to high-grade specimens of induction relays, is energized by a very small power of the order of 10^{-4} to 10^{-5} Watts. The maximum permissible input power of the transmitter crystals (if an InSb semiconductor is used) amounts to 1 Watt. The construction of relay protections operating on a Hall-effect basis is a problem of great actuality. A power-directional relay was designed in the Institute of Electromechanics AS USSR on the basis of the circuit described. It was tested on the electro-dynamical model of the transmission line Volzhskaya GES - Moskva (Volga Hydroelectric Power Station - Moscow). No cases of an incorrect operation were recorded. The reaction time of the relay in the event of short-circuits within the zone to be protected did not exceed 10 msec. There are 7 figures and 3 references, 2 of which are Soviet.

ASSOCIATION: Institut elektromekhaniki Akademii nauk SSSR
(Institute of Electromechanics, AS USSR)

Card 2/3

SIROTOK, V.K.

BOBROV, V.M.; VORONOV, A.A.; GLEBOV, I.A.; IVANOV, V.I.; KARPOV, G.V.; KASHTELYAN, V.Ye.; SEMENOV, V.V.; SIROTOK, V.K.; SIRYY, N.S.; SUKHANOV, L.A.; URUSOV, I.D.; FETISOV, V.V.; FOMINA, Ye.N.; KOSTENKO, M.P., akademik, red.; DOLMATOV, P.S., red.izd-va; SMIRNOVA, A.V., tekhn.red.

[Electrodynamic modeling of power engineering systems] Elektro-dinamicheskoe modelirovanie energeticheskikh sistem. Pod red. M.P.Kostenko. Moskva, 1959. 406 p. (MIRA 13:2)

1. Akademiya nauk SSSR. Institut elektromekhaniki. (Electric networks--Electromechanical analogies)

BOGOMOLOV, V.N.; SIROTKO, V.K.

Power-direction relay based on the Hall effect. *Fiz.tver.tela*
1 no.12:1813-1820 D '59. (MIRA 13:5)

1. Institut poluprovodnikov AN SSSR, Leningrad i Institut
elektromekhaniki AN SSSR.
(Electric relays)

SROTKO, U.K.

TABLE I. BOOK BIBLIOGRAPHY

SER/1706

Industries and Trade. Institute of Electrotechnics

Serials refer to separate publications: 1) Electrotechnical industry, electrically driven, alternating-current types of permanent use, non-electro-mechanical, electrical engineering, transformer, alternating-current regulation, automated, by Electric Machines, Electric Drive, AC Electric Traction and Instruments) Moscow, 1960. 222 p. 5,500 copies printed.

Sup. N. V. Shchelkunov, Ed. of Publishing House: I. V. Savchenko, Tech. Ed.: L. A. Smirnov.

NOTES: This collection of works is intended for specialists in electro-mechanics.

CONTENTS: The collection contains 28 works divided into three sections: 1) automated electric machines; 2) electric drives; 3) electrical regulation. No personalities with titles and automatic regulation and instruments. No references are mentioned. References accompanying most of the articles.

1. Electrotechnical industry. Computation of Inductors from the Type of the Work in Electric Machines

2. Electric drives. Computation of No-Load Run Characteristics after Adjustment of Control Parameters

3. Electrical regulation. Computation of Short-Circuit Ratio

4. Computation of Standard Transformers

5. Computation of Electric Heating of Synchronous Generators

6. Improvement in Accuracy of the Experimental Determination of Losses in Synchronous Machines

7. Problem of Designing the Magnetic Circuits of an Electric Generator by Photographic Steel

8. Design of Synchronous Generators in an Induction System

9. Synchronous Transmission with a Commutator Generator

10. Electrotechnical industry. Electromechanical Converter of Single-Phase Current to Commercial Frequency into Three-Phase Current, at Various Frequencies for Speed Regulation of Induction Electric Motors

11. Electrotechnical industry. Simulation of Induction Circuits of DC Motors. V. V. and V. M. Smirnov. Simulation of Induction Motors

12. Electrotechnical industry. Distribution of Flux Density in the Air Gap of Reluctance

13. Electrotechnical industry. Field Winding Requirements

14. Electrotechnical industry. General Rules and Methods of Investigating Steady-State Transient Conditions in a Circuit of Single-Phase Mercury-Arc Rectifier or an Electric Locomotive

15. Electrotechnical industry. Investigation of Transients in the Circuit of a Single-Phase Mercury-Arc Rectifier of an Electric Locomotive

16. Electrotechnical industry. Distribution of Winding Currents in

17. Electrotechnical industry. Single-Phase Commutator Traction Motor Form

18. Electrotechnical industry. Single-Phase Commutator Traction Motor Form

19. Electrotechnical industry. Single-Phase Commutator Traction Motor Form

19a

SIROTKO, V. K.

SOV/4172

Collected Papers (Cont.)

Sirotko, V.K., L.A. Sukhanov, and G.M. Smolin. 3.5 kva Transformer Model
The article contains a detailed description of the MTO-3.5 transformer
designed at the Institute of Electromechanics, Academy of Sciences USSR.
Investigations on the power system electrodynamic simulator of this
Institute have demonstrated the adequacy of the simulator.

81

Sukhanov, L.A. Additional Short-Circuit Losses in Simulator Synchronous
Generators With Nonsalient Poles

89

The author describes the causes of additional short-circuit losses and
seeks ways of reducing them. From experimental data, he concludes that
in a correctly designed simulator generator with nonsalient poles
additional short circuit losses could be reduced, but not below 0.4%.

✓ Sbornik rabot po voprosam elektromekhaniki, vyp. 3: Energeticheskiye sistemy,
elektromashinostroyeniye, elektricheskaya tyaga, avtomatizirovannyi elektroprivod,
avtomaticheskiye i telemekhanicheskiye sistemy, elektroversorochnoye oborudovaniye
Moscow, Izd-vo AN SSSR 1960 314p.
publ. from Akad nauk SSSR Inst. elektromekhaniki

Card 5/13

SIROTKO, V. K.

Cand Tech Sci - (diss) "Relay protections from the Hall effect."
Leningrad, 1961. 15 pp; (Ministry of Higher and Secondary Special-
ist Education RSFSR, Leningrad Electrical Engineering Inst imeni
V. I. Ul'yanov (Lenin)); 200 copies; price not given; (KL, 6-61
sup, 225)

BARKHATOV, G.V.; VLADIMIROVA, G.I.; PLEVALOV, I.I.; SIROTKO, V.K.

Transistorized relay protection of 35 kv. electric lines.
Sbor. rab. po vop. elektromekh. no.5:117-132 '61. (MIRA 14:6)
(Electric lines)
(Electric protection)

S/194/62/000/001/011/066
D201/D305

94370

AUTHOR:

Sirotko, V. K.

TITLE:

Influence of the dependence of the semiconductor wafer resistance in the Hall e.m.f. pick-ups on inductance on the properties of the Hall-effect relays

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 1, 1962, abstract 1-2-9y (Sb. rabot po voprosam elektromekhan. Inst. elektromekhan. AN SSSR, 1961, no.5, 132-142)

TEXT: The principles of designing a Hall-effect relay, distinguished by its speed of operation, reliability, simplicity and adequate sensitivity, are given. It is shown that the suggested method of design for minimum operating relay power, with consideration of the dependence of resistivity of semiconductor wafers of the Hall e.m.f. pick-ups on induction, is accurate enough to evaluate the magnitude of all possible rough approximations of the

Card 1/2

✓
B

S/194/62/000/001/011/066
D201/D305

Influence of the dependence ...

relay design figures (of the order of 1.5 to 3). Design formulas and graphs are given. 6 figures. *Abstracter's note: Complete translation.* ✓
3

Card 2/2

S/194/62/000/001/008/066
D201/D305

AUTHORS: Nadezhdin, V. V. and Sirotko, V. K.
TITLE: A semiconductor reverse power and frequency difference relay
PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 1, 1962, abstrat 1-2-7ch (Sb. rabot po vopr. elektromekhan. In-t elektromekhaniki AN SSSR, 1961, no. 5, 142-148)

TEXT: The description of a reverse power relay (R), for disconnecting small power synchronous generators working in parallel with other generators when going over to a motor operation is given. The relay is designed for 230 V, 5 amp and 400 c/s operation and consists of a measuring (two Hall e. m.f. pick-ups) and of an output stage. The basic circuit diagram of the reverse power R, the circuit of the measurement stage of R and the oscillogram of transients in the reverse power R are given. It is stated in conclusion that the use of the Hall e.m.f. pick-ups permits the con-

Card 1/2

001550910002-8

44085

S/573/62/000/007/012/015
D201/D308

9.2140 (also 4305)

AUTHORS:

Kashenkov, V.M., Nadezhdin, V.V. and Sirotko, V.K.

TITLE:

A contactless frequency difference semiconductor
relay

SOURCE:

Akademiya nauk SSSR. Institut elektromekhaniki.
Sbornik rabot po voprosam elektromekhaniki no. 7,
1962. Avtomatizatsiya, telemekhanizatsiya i priboro-
stroyeniye, 549-555

TEXT:

The authors describe the prototype of a semiconductor relay designed at the Institut of elektromekhaniki AN SSSR (Institute of Electrical Engineering of the USSR), for semi-automatic control of the self-synchronization of 3-phase synchronous small power generators, under the conditions of extreme vibrations, shocks and acceleration. The relay consists of a diode phase detector, null-indicator, electrical integrator, output stage and a power supply. The final voltage from the generator and the mains voltage are applied to the phase sensitive detector, at the output of which

operations within transistor the relay operation of the generator.

Card 1/2

44086

S/573/62/000/007/013/015
D201/D308

4.4370

AUTHORS:

Mashenkov, V.M. and Sirotko, V.K.

TITLE:

A distance Hall effect relay

SOURCE:

Akademiya nauk SSSR. Institut elektromekhaniki.
Sbornik rabot po voprosam elektromekhaniki. no. 7,
1962. Avtomatzatsiya, telemekhanizatsiya i priboro-
stroyeniye, 355-363

TEXT: The authors consider all possible configurations of distance relays using the Hall effect and describe a prototype of a directional impedance Hall effect relay designed at the Institut elektromekhaniki AN SSSR (Institute of Electrical Engineering of the AS USSR). It is shown that a relay with compensation of the a.c. component of the Hall effect emf requires a smaller number of transducers, but exhibits some interaction between the voltage and current circuits. The investigated prototype was a.c. component compensated. Owing to resistive losses in the windings of the transducers the angle of maximum sensitivity of the directional

Card 1/2

9,4370

S/573/62/000/007/014/015
D201/D308

AUTHOR: Sirotko, V.K.

TITLE: Output stages for a Hall effect relay

SOURCE: Akademiya nauk SSSR. Institut elektromekhaniki. Sbornik rabot po voprosam elektromekhaniki. no. 7, 1962. Avtomatizatsiya, telemekhanizatsiya i priborostroyeniye, 363-372

TEXT: From the analysis of existing types of Western and Russian types of Hall effect protection relays having a fast and highly sensitive output stage, the author considers all the possibilities for the design of such a relay. Conclusions: 1) It is quite possible to design a reliable, sensitive and fast output stage for the Hall effect relay. 2) The following arrangements may be used: a) a highly sensitive polarized or electromagnetic relay; b) a transistorized amplifier with a polarized relay of normal sensitivity; c) a magnetic amplifier with a polarized relay of normal sensitivity; d) a transistorized magnetic amplifier with polarized relay of nor- 16

Card 1/2

Output stages for a Hall effect relay

S/573/62/000/007/014/015
D201/D308

mal sensitivity. 3) The highly sensitive relays, although both sensitive and fast, are difficult to manufacture and to use. 4) A transistorized amplifier with a polarized relay, although having the required speed, is not sufficiently sensitive with normal production type transistors. 5) A magnetic amplifier with normal sensitivity relay has the required sensitivity but not the required speed. 6) The best seems to be an output stage with a transistorized magnetic amplifier with a normal sensitivity relay. The circuit and operation of such an output stage are described. There are 6 figures. ✓C

Card 2/2

VOSTROKNUTOV, Nikolay Nikolayevich; DOROGUNTSEV, Viktor Gavrilovich;
MARANCHAK, Vadiliy Makarovich; OVCHARENKO, Nikolay Il'ich;
SIROTINSKIY, Yevgeniy Leonidovich; FABRIKANT, Veniamin
L'vovich; IVANOV, V.I., prof., retsezent; GIZIL, Ye.P.,
dots., retsezent; SIROTKO, V.K., kand. tekhn. nauk, retse-
zent; SOLOV'YEV, I.I., prof., red.; FEDOSEYEV, A.M., prof.,
red.; OVSYANNIKOVA, Z.G., red.; GOROKHOVA, S.S., tekhn.red.

[Use of transistors in relay protection and system automa-
tion] Primenenie poluprovodnikov v ustroistvakh releinoi
zashchity i sistemnoi avtomatiki. Moskva, Vysshiaia shkola,
1962. 282 p. (MIRA 16:3)

(Electric protection) (Electric relays)
(Transistor circuits)

MASHENKOV, V.M.; NADEZHDIN, V.V.; SIROTKO, V.K.

Contactless transistor frequency difference relay. Sbor.rab.
po vop.elektromekh. no.7:349-355 '62. (MIRA 16:1)
(Electric relays)

MASHENKOV, V.M.; SIROTKO, V.K.

A distance-type relay based on the Hall effect. Sbor.rab.po
vop.elektromekh. no.7:355-363 '62. (MIRA 16:1)
(Electric relays)

SIROTKO, V.K.

Working components for a relay using the Hall effect in a
semiconductor. Sbor.rab.po vop.elektromekh. no.7:363-372 '62.
(MIRA 16:1)

(Electric relays)

MASHENKOV, V.M.; NADEZHIN, V.V.; SIROTKO, V.K.

Relay portion of a contactless directional high-frequency protection system of cable lines with a measuring component based on the Hall effect. Sbcr. rab. po vop. elektromekh. no.9:275-287 '63.

(MIRA 17:2)

MASHENKOV, V.M.; SIROTKO, V.K.

Study of the degree of compensation of the variable component of a
binary frequency Hall e.m.f. in a phase-sensitive network using two
transducers. Sbor. rab. po vop. elektromekh. no.9:287-298 '63.
(MIRA 17:2)

GLEBOV, I.A.; KASHTELYAN, V.Ye.; NOVITSKIY, V.G.; SDEL'NIKOV, V.V.;
SIROTKO, V.K.; MEL'NIKOV, N.A.; LUCINSKIY, Ya.N.; STERNINSON,
L.D.; YUREVICH, Ye.I.; TSUKERNIK, L.V.

Scientific problems in the field of automatic control and regulation of large electric power systems and their elements.

Sbor. rab. po vop. elektromekh. no.10:23-40 '63.

(MIRA 17:8)

L 04477-67 EWT(1) GD

ACC NR: AT6008930 SOURCE CODE: UR/0000/65/000/000/0266/0276

AUTHOR: Nadezhdin, V. V.; Sapronov, A. K.; Sirotko, V. K.

8

B+1

ORG: none

TITLE: Contactless semiconductor distance protection for 500-kv lines which uses Hall sensors and ferrites

SOURCE: AN SSSR. Institut elektromekhaniki. Avtomaticheskiye i teleinformatsionnyye sistemy (Automatic and teleinformation systems). Moscow, Izd-vo Nauka, 1965, 266-276

TOPIC TAGS: transmission line protection, power line protection, distance protection, electric protective equipment, semiconductor device, ferrite

ABSTRACT: An experimental model of a new 500-kv-line phase-to-phase protection is described, characteristics of its elements are given, and the results of preliminary tests are reported. The protective system comprises measuring, logical, output, and power-supply units. The measuring unit contains an initiating

Card 1/2

L 04471.67

ACC NR: AT6008930

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element and 3 distance elements for each of two protection zones. The initiating element operates only on appearance of negative- and zero-phase-sequence components (it is assumed that an unsymmetrical fault always precedes the 3-phase fault). Each voltage component, proportional to a corresponding phase-sequence current, is rectified, smoothed, and applied to a resistive divider, which serves for obtaining different distance settings. Directional distance elements are used for the first zone, and simple distance elements for the 2nd. Two Hall generators with voltage stabilizers are used as a phase-sensitive device; outputs of these devices are connected to a ferrite-transistor balance detector. Principal connection diagrams and technical parameters are given. Laboratory tests revealed a maximum spread of operating impedance of 1% and an operating time of 25-30 msec. Orig. art. has: 4 figures, 9 formulas, and 1 table.

SUB CODE: 09 / SUBM DATE: 14Jul65 / ORIG REF: 005

Card 2/2 *egde*

L 42184-66 EWT(1) GD
ACC NR: AT6008933

SOURCE CODE: UR/0000/65/000/000/0293/0298

AUTHOR: Sirotko, V. K.

ORG: none

TITLE: Enhancing the speed of operation and temperature stability of Hall-effect-based relays

SOURCE: AN SSSR. Institut elektromekhaniki. Avtomaticheskiye i teleinformatiionnyye sistemy (Automatic and teleinformation systems). Moscow, Izd-vo Nauka, 1965, 293-298

TOPIC TAGS: Hall generator, Hall effect relay, power line protection, electric relay, electric protective equipment

ABSTRACT: A new method of increasing the speed of operation of a Hall-effect-based relay is suggested in which a nonlinear inductance is inserted in the null-indicator circuit. A square-loop ferrite-core nonlinear-inductance coil is so designed that the maximum alternating-voltage component in the Hall emf does not cause saturation of the core; hence, the a-c component in the null-indicator

Card 1/2

L 42184-66

ACC NR: AT6008933

current is very small. When a positive direct-voltage component appears in the Hall emf, the positive maxima become higher than those corresponding to the saturation induction, and a considerable current starts flowing in the null indicator. Preliminary results show that the a-c component can be effectively suppressed by the nonlinear inductance, with the relay operating time increasing by only 3-5 msec. The method is equally applicable to both the two-Hall-sensor a-c compensation circuits and one-Hall-sensor no-compensation circuits. The null-indicator-circuit resistances can be so proportioned that a temperature self-compensation will occur; the temperature-caused current variation can be reduced to $\pm 20\%$ or better by this simple method, even in the case when indium-antimonide Hall generators are used. Orig. art. has: 2 figures, 4 formulas, and 1 table.

SUB CODE: 09 / SUBM DATE: 14Jul65 / ORIG REF: 005 / OTH REF: 001

ns
Card 2/2

SAPIRO, M.; SIROTHIKOV, S.; LESHIN, A.

Automatic control of a pressure in intermediate receivers during
the production of carbonic acid. Khol. tekhn. 37 no. 6:58 E-D '60.
(MIRA 13:12)

(Leningrad--Dry ice)

SAPIRO, M.M.; SIROTNIKOV, S.Z.; CHUDAKOVA, M.I.

Cleaning of hydrolyzers with alkalies. Gidroliz.i lesokhim.
(MIRA 13:2)
prom. 12 no.6:16-17 '59.

1. Leningradskiy gidroliznyy zavod (for Sapiro, Sirotnikov).
2. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy i
sul'fitno-spirtovoy promyshlennosti (for Chudakov).
(Hydrolysis)

SAPIRO, M.M.; SIROTHNIKOV, S.Z.; LESHIN, A.S.

Automatization of the dry ice production process. Gidroliz.i
lesokhim.prom. 13 no.6:20 '60. (MIRA 13:9)

1. Leningradskiy gidroliznyy zavod.
(Leningrad—Dry ice) (Automatic control)

SAPIRA, M.M.; SIROTNIKOV, S.Z.

Mechanization of lime shop operations. Gidroliz. i lesokhim.prom.
13 no.7:27-28 '60. (MIRA 13:10)

1. Leningradskiy gidrolisnyy zaved.
(Leningrad--Hydrolysis)

SAPIRO, M.M, inzh.; SIROTNIKOV, S.Z., inzh.

Using mechanized caps for hydrolyzers. Mekh.i avtom. proizv. 15
no. 6:29-30 Je '61. (MIRA 14:6)
(Hydrolysis—Equipment and supplies)

SAFIRE, M.M.; SIROTNIKOV, S.Z.

An experimental shop at the Leningrad Hydrolysis Plant. Gidroliz.
i lesokhim. prom. 18 no.3t27-29 '65. (MIRA 18:5)

1. Leningradskiy gidroliznyy zavod.

TOLDY, M.; SIROTNY, E.

Anesthesia in cesarean section. Bratisl. lek. listy 43 Pt. 1
no. 6:334-342 '63.

1. Katedra starostlivosti o matku II Lek. fak. Univ. Komenskeho
v Bratislave, veduci doc. MUDr. A. Hudcovic.
(CESAREAN SECTION)
(ANESTHESIA, OBSTETRICAL)

BRUCHAC, D.; VIERIK, J.; SIROTNY, E.

New method of aritificial interruption of pregnancy with the
vacuum extractor. Cesk. gynek. 29 no.1:83-86 F'64.

1. II. gyn.-por. klin. Lek. fak. UK v Bratislave; prednosta:
doc. dr. A. Hudcovic.

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550910002-8

SHCHETIN, I. I. (ENGR)

SHCHETIN, I. I. (ENGR) -- "INVESTIGATION OF THE PROBLEM OF MECHANIZED TRANSPORTATION, WOOD LOAD, AND THE OTHER SHORT FORESTY MATERIALS IN FOREST STORES." SUB 30 JUN 52, MOSCOW FORESTY ENGINEERING INST (DISSERTATION FOR THE DEGREE OF CANDIDATE IN TECHNICAL SCIENCES)

PERIOD: VECHERNAYA NOGEEVA, JANUARY-DECEMBER 1952

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550910002-8"

GIROTOV, I. I. (Engineer)

Lumbering

Logging timber in mountainous country with winches mounted on tractor S-30
Mekh. trud. rab. 6 no. 5, 1952

Monthly List of Russian Accessions, Library of Congress, August, 1957. UNCLASSIFIED.

SIROTOV, I.I.

"Hauling trunks in mountainous country with the help of winches mounted on S-80 tractors",
p. 81 (Analele Romano-Sovietice. Seria Silvicultura-Industria Lemnului Si A Hartiei.,
Series a II-a, v. 7, no. 15, Sept/Oct. 1952 Bucuresti)

SO: Monthly List of ~~Romanian~~ Accessions, Library of Congress, September 1953, Uncl.

AKULOV, A.N.; SHERKOV, B.I.; SIROTOV, I.I., red.

[Mechanization of lumbering and floating] Mekhanizatsiya lesop-
zagotovok i lesosplava. Moscow, 1957. 215 p. (MIRA 11:9)
(Lumbering)

STOGOV, Boris Nikolayevich, dots.; SIROTOV, Ivan Ivanovich, dots.; MASLENKOV, Fedor Nikolayevich, dots.; SHALAYEV, S.A., retsenzent; SULIMOV, A.N., red.; ITERMAN, Ye.L., red.izd-va; SHIEKOVA, R.Ye., tekhn. red.

[Technology, mechanization, and planning of the landings of lumbering enterprises] Tekhnologija, mekhanizatsija i proektirovanie nizhnikh skladov lesozagotovitel'nykh predpriatiij. Moskva, Goslesbumizdat, 1962. 414 p. (MIRA 15:11)

1. Direktor Oleninskogo lesopromyshlennogo khozyaystva TSentral'nogo nauchno-issledovatel'skogo instituta mekhanizatsii i energetiki lesnoy promyshlennosti (for Shalayev).
(Lumbering)

SIROTOV, I.I., dots.; SIROTOV, V.I., inzh.; MASLENKOV, F.N., dots.; STUPNEV, G.K., ofitsial'nyy retsenzent; SULIMOV, A.N., red.; PLESKO, Ye.P., red. izd-va; SHIBKOV, R.Ye., tekhn. red.; GRECHISHCHEVA, V.I., tekhn. red.

[Forest exploitation] Lesoeksploatatsiia. Moskva, Goslesbum-
izdat, 1962. 359 p. (MIRA 15:11)

1. Direktor Krestetskogo lesopromyshlennogo khozyaystva
TSentral'nogo nauchno-issledovatel'skogo instituta mekhanizatsii i energetiki lesnoy promyshlennosti (for Stupnev).
(Lumbering)

SIROTOV, K.M.

Kirill Ivanovich Ivanov; obituary. Meteor. i gidrol. no.2:58
F '56. (MLRA 9:6)
(Ivanov, Kirill Ivanovich, 1908-1955)

SIROTOV, K.M.

Attenuation of ocean waves and calculating their height in the
case of abating wind. Meteor.i gidrol. no.10:48-52 0 '56.
(MLRA 9:12)

(Waves)

SIROTOV, K. M. Cand Geog Sci -- (diss) "Calculation of the development and
abatement of wind waves for the forecast of disturbances in the Apsheron area
of the Caspian Sea." Mos, 1957. 9 pp with graphs (Main Administration of the
Hydrometeorological Service under the Council of Ministers USSR. Central Inst
of Forecasts), 100 copies (KL, 4-58, 81)

-10-

SIROTOV, K.M.

"Maritime hydrometeorological information and prognoses" by N.A.
Belinskii. Reviewed by K.M. Sirotov. Meteor. i gidrol. no.9:49-51
S '57. (MIRA 10:9)

(Meteorology, Maritime)
(Belinskii, N.A.)

SIROTOV, K.M.

Short climatological survey of the western region of the north-
eastern Atlantic Ocean. Trudy GOIM no.20:56-96 '52. (MIRA 11:3)
(Atlantic Ocean--Climate)

SIROTOV, K.M.

Calibration curve and chart of periods for the VOM-47-TM wave re-
corder. Trudy GOIN no.22:52-53 '52. (MIRA 12:1)
(Oceanographic instruments) (Waves)

SIROTOV, K.M.

AID P - 2621

Subject : USSR/Meteorology

Card 1/2 Pub. 71-a - 24/26

Authors : Vitel's, L.A.; A.I. Sorokina and K. M. Sirotov;
A.G. Bulavko; O.N. Mel'nichuk; B.S. Belov;
S. M. Seleznev

Title : Scientific meetings and conferences

Periodical : Meteogidr, 4, 61-62, J1/Ag 1955

Abstract : The article reports on different conferences of the Oceanographic Commission of the Geographic Society in Leningrad devoted to the new research on the Sun and its functions, and to the annual issue on hydro-meteorological observations of the sea. Another conference was held in Minsk where hydrological research problems were considered. A conference held in Chernovitsy discussed the problems of short-range forecasting. A conference of the Sverdlovsk Scientific Research Geophysical Observatory reported their findings on electricity in thunderclouds and on diurnal temperature changes.

Met 1 gindr, 4, 61-62, J1/Ag 1955

AID P - 2621

Card 2/2 Pub. 71-a - 24/26

Institution : None

Submitted : No date

SOV/124-58-11-12660

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 11, p 103 (USSR)

AUTHOR: Sirotov, K. M.

TITLE: The Development and Dissipation of Wind Waves in the Apsheron-sk
Sector of the Caspian Sea (Razvitiye i zatukhaniye vetrovykh voln
v Apsheronskom rayone Kaspiyskogo morya)

PERIODICAL: Tr. Gos. okeanogr. in-ta, 1957 Nr 38, pp 34-83

ABSTRACT: The author employs observational data to elucidate the peculiarities of the wave regime in the Apsheronsk sector of the Caspian Sea and to investigate some general properties of wind-driven waviness. In Chapter I he examines the methods used to obtain the basic observational material. The investigation is supported, on the one hand, by systematic observations made during 1953 and 1954 at the wave-measuring station at Neftyanyye Kamni by means of the rod and R. N. Ivanov's perspectometry and, on the other hand, by spot measurements of the wave elements by means of wavegraphs and stereophotography. An assessment is made of the accuracy of rod and perspectometric observations, and a comparison is made between the wave heights obtained by these instruments and those obtained by the

Card 1/4

SOV/124-58-11-12660

The Development and Dissipation of Wind Waves in the Spsheronsk Sector (cont.)

wavegraph. The chapter also contains an experimental verification of a theoretical function, obtained by the reviewer, for the heights attainable by three-dimensional waves, also a verification of the static tie, computed by him, between the heights of the wave oscillations at a fixed point and the heights of the corresponding three-dimensional waves. The verification is based on the synchronous registration of waves, performed by the author, with the aid of the wavegraph and sequence stereophotography. Chapter II contains a description of the conditions of development of waves in the sector near Neftyanyye Kamni and a characteristic of the fundamental outlines of the wave regime in that area. The author analyzes the peculiarities of the wind regime as derived from the works of S. D. Kashinskiy and G. V. Rzheplinskiy, considers the maximum observed wave dimensions, and speaks of the repetitiousness of waves of various dimensions. At the end the author leads to the conclusion that the Neftyanyye Kamni sector is the locale of the largest waves occurring in the Caspian Sea. Chapter III contains a derivation of new empirical relationships that describe the growth and dissipation of wind waves when the wind velocity is a linear function of time. Perspectometric wave-height observations serve as the base material. The perspectometric wave heights are first translated into mean wave-oscillation heights with the aid of a graph proposed by L. N. Ikonnikova. This transition is performed because the mean heights, according to investigations

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SOV/124-58-11-12660

The Development and Dissipation of Wind Waves in the Spsheronsk Sector (cont.)

by Ya. G. Vilenskiy and B. Kh. Glukhovskiy, are practically not susceptible to the influence of small depths up to the zone where the waves break, whereas the wave heights as obtained by perspectometry are characteristic of the wave dimensions in the observational area only. A growth-stage formula

$$h = (0.00334t^2 + 0.03t) a$$

is obtained, where h is the mean wave height (in m) at the moment of time t , t is the time in hours elapsed from the beginning of the augmentation action of the wind, and a is the wind acceleration (in m/sec per hour). For the dissipation stage the author obtains the formula

$$h = h_0 \exp \left[- \frac{t}{14.7 + 3.8 / |a|} \right]$$

where h is the mean height of the dissipating waves (in m) at the moment of time t , h_0 is the initial height, t is the time in hours, and $|a|$ is the absolute value of the wind acceleration (in m/sec per hour). From the formulas obtained the author constructs nomograms which permit him to find the wave height as a

Card 3/4

SOV/124-58-11~12660
The Development and Dissipation of Wind Waves in the Spsheronsk Sector (cont.)
function of the wind acceleration and the time. Bibliography: 33 references,
Yu. M. Krylov

Card 4/4

SIROTOV, K.M.

Instruments and methods used in the observation of waves from
a boat. Biul.Okean.kom. no.2:61-64 '58. (MIRA 12:5)
(Waves)

PHASE I BOOK EXPLOITATION SOV/4737

Ivanov, A.P., I.F. Kirillov, A.A. Rybnikov, and K.M. Sirotov

Gidrometeorologicheskiye nablyudeniya na kitoboynom sudne "Slava-15" Antarkticheskoy kitoboynoy flotilii v 1955-58 gg. i glubokovodnyye gidrologicheskiye nablyudeniya v 1950-51 i 1953-58 gg. (Hydrometeorological Observations Made on Board the Whaler "Slava-15" of the Antarctic Whaling Fleet, 1955-58, and Deep-Sea Hydrological Observations, 1950-51 and 1953-58) Moscow, Gidrometeoizdat (Otd-niye), 1960. 319 p. (Series: Moscow. Gosudarstvennyy okeanograficheskiy institut. Trudy, vyp. 58) 650 copies printed.

Sponsoring Agencies: Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR; Gosudarstvennyy okeanograficheskiy institut.

Ed. (Title page): V.S. Nazarov; Ed. (Inside book): N.I. Scrokina; Tech. Ed.: I.M. Zarkh.

PURPOSE: The book is intended for members of the whaling industry and for navigators. It will also be useful to meteorologists and hydrologists.

COVERAGE: This issue of the Transactions of the Moscow State Oceanographic Institute presents the results of hydrometeorological and glaciological observations
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Method of marking films in stereoscopic photography of waves from
the ship. Biul.Okean.kom. no.6:84-85 '60. (MIRA 14:7)
(Photography, Stereoscopic) (Waves)

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Comparability of wave observations. Biul. Okean kom. no.8:90-93
'61. (MIRA 15:1)
(Waves)

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Some characteristics of wind waves. Trudy Okean.kom. 11:59-62 '61.
(MIRA 14:7)

(Waves)

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Forecasts of oceanic wind waves and local relationships. Trudy
Okean.kom. 11:63-68 '61. (MIRA 14:7)
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Studying the variability of oceanic and atmospheric conditions.
Okeanologiya 1 no.5:922-924 '61. (MIRA 15:3)
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MAKSIMOVA, A.A.; MARGOLIN, L.M.; RUDNEV, G.V.; SIROTOV, K.M.;
SOLOPOV, A.V.

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(MIRA 15:12)
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(Hydrology—Congresses) (Meteorology—Congresses)

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Terminology of swells. Okeanologija 3 no.2:362 '63.
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